

## STREET LIGHTING DESIGN CHAPTER

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#### APPENDIX

As-Built Drawing Statement

## **STREET LIGHTING DESIGN CHAPTER**

### **1.0 GENERAL**

#### **1.1 Responsibility to Provide Facilities**

Unless otherwise approved by the City, the Developer of newly developed areas and subdivisions within the City corporation limits shall be required to design and construct street lighting systems in accordance with the City specifications and policies or have the street lighting system designed and constructed by the current power company. The plans shall be reviewed and approved by the City prior to construction. All costs associated with furnishing and installing the street lighting systems including but not limited to: light fixtures; poles; relays; photo eye; foundations; conduit; wiring; control panels; meters and pedestals; and testing will be borne by the Developer. The City will assume ownership of the street light system on streets which the City has accepted into the City of Brunswick Street and Alley System and after inspection and testing of the system is complete and the system is functional and approved by the City in all respects. The plans must be designed by and sealed by a Professional Engineer licensed in Maryland who is qualified in the design of electrical street light systems. In the event a conflict exists between the requirements, the more stringent applies.

### **2.0 MATERIALS**

#### **2.1 Lights**

Street lights shall be of the type and quality as approved by the City.

#### **2.2 Poles**

Poles shall be of the type and quality as approved by the City.

#### **2.3 Wiring**

- a. Wiring shall be #6 CU, 3 conductor installed in 1 1/2-inch PVC Schedule 40 conduit with a minimum of 24-inches of cover or as approved by the City of Brunswick. Street crossings shall have 30" of cover.
- b. Wiring from the fuse holder to fixture shall be 14/3 SEO cable. A 3/4-inch threaded ground stud shall be welded to the pole base.
- c. Conductors shall be fused with fuse holder and BAF 5 amp for each individual fixture.

#### 2.4 Meter/Panel

Meter/Panel enclosure shall be rated for 100 amp minimum.

#### 2.5 Workmanship

All work shall be in accordance with the requirements of the City of Brunswick and the National Electric Code.

### **3.0 LOCATION**

#### 3.1 Spacings

New poles and fixtures will be located between the curb and sidewalk, approximately 12-inches - 15-inches behind the face of curb. The light poles and fixtures shall be located at 100-foot spacing from pole to pole, on alternating sides of the street (staggered) or as approved by the City. A minimum of two (2) light poles and fixtures, staggered across the intersection, shall be required at all collector/collector, or greater intersections. The final fixture location must be approved by the City.

#### 3.2 Layout Requirements

Fixtures shall be strategically located to provide adequate illumination for all intersections. Adequate shall be defined as providing a minimum of 0.5-foot candles at all locations within the road right-of-way including the intersections of streets or as approved by the City. Conduit shall be provided to the end of each subdivision street constructed by the Developer, with a cap for future extension.

### **4.0 DESIGN PARAMETERS**

#### 4.1 Volt Drop

The maximum allowable voltage drop in any circuit shall be 3 percent. The final design of all street lighting shall be reviewed and approved by the City of Brunswick.

#### 4.2 Coordination and Approval

The layout, location and source of power must be coordinated with and approved by the City of Brunswick, Allegheny Power Corporation, and the Frederick County Electrical Inspector.

### **5.0 CONTRACT DRAWINGS AND DOCUMENTS TO BE SUBMITTED TO THE CITY**

## 5.1 Plans

Contract drawings shall be prepared on drawings separate from other utilities. Separate drawings shall be devised for each street or subdivision. The scale of the plans shall be 1-inch = 50-feet or larger. The location of the existing and proposed light fixture shall be clearly identified, with all conduit shown. Street crossing shall be located by centerline stationing of the roadway. All control panels/meter pedestals shall be indicated and each separate circuit numbered for clarity.

## 5.2 Typical Sections and Details

Plans should include all details of the light poles and fixtures, foundation details and trenching cross sections. Any special design feature shall be shown on the drawing or clearly stated in the general notes.

## 5.3 Distribution of Final Plans

The appropriate number of the final plans, as determined by the Planning and Zoning Office, shall be submitted to the to the Office of Planning and Zoning for use by the City.

## 5.4 Distribution of As-Built Plans

As-Built drawings are required to be submitted with the Request for Conditional Acceptance in addition to the Request for Final Acceptance for review and approval. Once approved, the appropriate number of the As-Built drawings on mylar plan sheets with the statement and Engineer's signature, as shown in the Appendix, and City Approval Block shall be submitted to City Hall prior to Final acceptance of the work by the City and on computer or GIS diskette in a format approved by the City Public Works, City Engineer, and the Office of Planning and Zoning.

AS-BUILT DRAWING

I HEREBY STATE, TO THE BEST OF MY  
KNOWLEDGE AND PERSONAL BELIEF, THAT  
THE WORK SHOWN ON THESE PLANS WAS  
CONSTRUCTED TO THE LINES AND GRADES  
SHOWN.

\_\_\_\_\_  
ENGINEER          DATE          P.E. NO.

AS-BUILT DRAWING  
STATEMENT

CITY OF BRUNSWICK